SUPPORT BY PARENTS, CLASSMATES, FRIENDS AND SIBLINGS IN PREADOLESCENCE: COVARIATION AND COMPENSATION ACROSS RELATIONSHIPS

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ABSTRACT

A sample of 139 Grade 6 students (12-year-olds) completed a social network interview and rated their network members on various dimensions of social support. Low support showed some consistency across members of the nuclear family but was fairly specific for particular network members outside of the family. Children with low support from their mother, father or classmates reported a low general self-worth, but those with low support from siblings or nonschool peers did not. Low support by one parent could only be compensated for by a supportive relationship with the other parent. Low support by a classmate was not compensated by supportive siblings or nonschool peers. These findings underscore the relationship specificity of social support and of its relation to self-esteem in preadolescence.

KEY WORDS • compensation • self-esteem • social support network

Most research on the developmental significance of children's and adolescents' social relationships has focused on single relationships, e.g. with the

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mother, the father, siblings, grandparents, or peers. In recent years, a more comprehensive approach to social relationships has been proposed that simultaneously analyzes all significant relationships of a person at once: the individual or personal network of relationships (Milardo, 1992). The major advantage of such a network perspective is that the quality of each relationship and its relation to important developmental outcomes can be studied in the context of all other relationships. In the present study, we investigate one important quality of relationships: the social support provided by them.

From a network perspective, it is possible to ask questions that cannot be answered by studies that focus only on particular kinds of relationships. Our first question is how strongly the level of social support covaries across different kinds of network members. High covariation would indicate that social support is mainly due to individual characteristics of the supported person; low covariation would indicate a high partner specificity of support level. Even a negative covariation is conceivable, e.g. for adolescents a negative correlation between support from parents and peers because low parental support may motivate many adolescents to turn successfully to peers for support. Such a covariation analysis can identify classes of relationships that are equivalent with regard to social support.

Thus far, mixed results have been found in such analyses. Barrera et al. (1993) reported correlations ranging from .37 to .70 among perceptions of support from the mother, the father, the closest sibling, and the best friend. Dubow & Ullman (1989) found for children in Grades 3, 4 and 5 (9–11-year-olds) three factors for support from the family, from peers (friends and classmates), and from teachers. These factors sometimes did and sometimes did not contribute independently to children's problem behavior and competencies, depending on the particular type of behavior and who provided information about it.

In addition to the question about covariation of support across different kinds of relationships, our second question concerns the association between relationship-specific support and one major aspect of personality and adjustment: self-esteem. Sandler et al. (1989) described three processes through which social support can affect adjustment, one of which is protecting self-esteem. Social support can protect self-esteem for children under stress through three mechanisms: preventing the occurrence of stressful events; moderating negative effects of stress on self-esteem; and directly increasing self-esteem. In addition, high self-esteem may increase the likelihood of receiving support when one needs it and the perception of support when support is actually provided.

Relations between social support and self-esteem have been reported by various researchers. Dubow & Ullman (1989) found moderate positive correlations between children's self-esteem as measured by the Global Self-Worth Scale of Harter's (1985) Self-Perception Profile, and their appraisals of family, teacher and peer support as well as their ratings of how frequently they received emotional/informational, emotional/esteem-enhancement, and tangible support. Levitt et al. (1993) found a relationship

between support from close family members and self-esteem, and an emergent role of peers as support providers in adolescence. Perceived peer support was found to be related to high self-esteem in a longitudinal study assessing children at the end of Grade 6 and at the middle and end of Grade 7 (Hirsch & Rapkin, 1987), and to high perceived self-competence (Cauce, 1986). Stocker (1994) found that perceived warmth in friendships, sibling relationships, and mother–child relationships was related to children's self-esteem. Barrera et al. (1993) reported that social support by father, mother, closest sibling, and best friend was in each case related to self-esteem in adolescents. However, when testing the unique contribution of each network member, only social support by the mother showed a significant effect. A similar finding was reported in a study by Hoffman et al. (1988), where maternal support had a strong effect on self-esteem, but paternal support had little effect once other support sources were controlled. Overall, these results seem to suggest that children's self-esteem is specifically associated with support from parents and peers, although there is some controversy with regard to the independent contributions of parents and peers and of mothers and fathers.

Our third question concerns possible compensation effects of relationship-specific support. If the covariation of social support between two kinds of relationships is not very high, there will be people with low support from one kind of network member but not from another. If low support from one kind of member indicates a negative effect on psychological health, e.g. if it is associated with low self-esteem, it can be investigated whether support from a particular kind of network member *compensates* for low support from another kind of network member by diminishing its negative effects on self-esteem. Consider, for example, children with low support from classmates, and assume that this group of children has a low self-esteem. Can this negative effect of low support from classmates be compensated for by a supportive nonschool friend? Compensation would be indicated by a higher self-esteem of those low-classmate-support children who have a supportive nonschool peer as compared to low-classmate-support children who do not have a supportive nonschool peer. Although the correlational nature of such a compensation analysis precludes answers regarding causal relations, it does provide clues about which kinds of relationships serve similar functions in personality development, and guidelines for intervention studies.

Surprisingly, compensation studies are rare. We are aware of only two studies of children or adolescents that have attempted to analyze compensation effects among more than two kinds of relationships with regard to social support. East & Rook (1992) selected groups of Grade 6 children (12-year-olds) who were perceived as isolated, aggressive, or average by their classmates. Isolated children perceived their relationships with classmates as less supportive, and their relationships with a favorite sibling as more supportive than the other two groups; the groups did not differ with regard to perceived support from nonschool peers. These discrepancies for the isolated children indicate that support is not highly consistent across the

three kinds of relationships. A main effect of isolation on self-rated internalizing problems such as loneliness and depression was not significantly ameliorated by high sibling support, and high support by a nonschool peer was somewhat paradoxically associated with higher loneliness in the whole sample, and higher self-rated aggression in aggressive children. Stocker (1994), on the other hand, found support in children in Grade 2 (8-year-olds) for a compensatory model of associations among adjustment and warmth in children's relationships with friends and mothers. Mean adjustment scores in children with low friendship warmth and low maternal warmth were worse than scores of children in other combinations. Our third research question was motivated by these two studies, and concerns possible compensation effects of relationship-specific support for every pair of relationships in the network.

A problem in network studies aimed at analyzing relations between individual and relationship characteristics is that there are often many network members for a particular kind of relationship (e.g. many classmates). For example, studies using the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985) for assessing social relationships in childhood and adolescence have typically dealt with this problem by letting the subjects rate only the most important, or favorite, member of each network category. This approach seems adequate if the interest is to determine the maximum support received within each relationship category. It is not sufficient, however, for evaluation of the effect of more than one supportive relationship per category. In the present study, we chose a somewhat broader approach by asking the subjects to name all people with whom they interacted regularly, or occasionally and who aroused positive or negative emotions in them, and let them rate all these people for social support. Then we analyzed the relation between perceived support from a particular network category (e.g. classmates) and self-esteem both by a correlational and by a more qualitative approach.

First, we correlated the *maximum* support from all members of a particular category with self-esteem (e.g. perceived support from the classmate with the highest score). This analysis of maximum support scores is similar to the approach of having subjects rate support from the most favorable member of a network category, as done in other studies using the NRI. Alternatively, support may show a *threshold* effect for self-esteem: it is only critical for self-esteem to have at least one supportive member of a particular kind, e.g. at least one supportive classmate; whether one has one, two, or more, may be not important. To test this threshold effect, we dichotomized the support scores into high vs low scores, and compared self-esteem between children with only low-supportive members and those with at least one supportive member in a particular network category.

When studying the relation between relationship quality and self-esteem there is a risk of confounding these two domains by the very content of the self-esteem items. For example, many items of the Social Acceptance scale by Harter (1985), and of the Loneliness scale by Asher et al. (1984), explicitly refer to peer relationships. To avoid this problem, we chose the General

Self-Worth scale from Harter's (1985) Self-Perception Profile. The items of this scale measure self-acceptance and do not refer to social relationships.

Summarizing, with these measures of relationship-specific support and relationship-unspecific self-worth, we addressed the following questions in our sample of preadolescents: (1) Is there covariation of social support across different kinds of network members (i.e. parents, classmates, non-school friends, siblings, grandparents, or other adults)? (2) Is there a relation between support from different kinds of network members and general self-worth? and (3) If such a relation can be found for a particular category of network members, can low support from this network category be compensated for by other supportive relationships in the network?

Method

A sample of 139 12-year-old children (age 11.3–12.4 years; 67 boys, 72 girls) served as subjects in the present study. This is a subsample of the sample of the Munich Longitudinal Study on the Genesis of Individual Competencies (LOGIC; Weinert & Schneider, 1986). The original LOGIC sample consisted of children born between August 1980 and July 1981 who began to attend preschools in the Munich area in the fall of 1984 and whose first language was German. This is a rather unbiased sample because the schools were selected from a broad range of neighborhoods, and more than 90 percent of the parents gave their consent for their child's participation. Because systematic attrition due to withdrawal of permission was extremely low (5% over 9 years), the current LOGIC sample is still fairly representative of preadolescents in the Munich area. For the purpose of the present study, the current LOGIC sample of 186 children was restricted to the 139 children who already knew their classmates for more than a year; they were all in Grade 6 (the other children were less familiar with their classmates due either to late school entrance, grade repetition or change of school). Note that no longitudinal data were available for the research questions in the present paper, and only Grade 6 data are used.

The children were individually interviewed about their *network of relationships*. They were asked to mention all the persons with whom they had regular interactions at least once a month or who aroused positive or negative emotions in them. The children were guided through their network by questioning them about (step)parents, grandparents, other adults (particularly teachers), siblings, classmates, and other children. They were also asked to report network members' sex, age, and household status (whether they lived together with the subject).

Subsequently the children rated all network members on five 3-item scales (5-point frequency format never–always), which measured *social support*: instrumental help, intimacy, enhancement of self-worth, companionship and reliability of relationship. The items of the first four scales were German translations of the original items of the four subscales of the NRI (Furman & Buhrmester, 1985); the reliability scale consisted of new items that emphasized unreliability of the network member rather than confidence in the continuation of the relationship (the items of this scale were 'You feel left alone by this person' (reversed); 'You feel abandoned by this person' (reversed); and 'You can rely on this person'). Children were instructed to complete the scales on their own, and were assured that their answers were treated anonymously.

Concurrently with their social network, children's *general self-worth* was assessed with a German version (Asendorpf & Van Aken, 1993) of Harter's (1985) Self-Perception Profile. For each item, children first choose from two alternative statements, and then decide whether the statement is 'sort of true' or 'really true' for them. Six items of this profile refer to general self-worth (e.g. 'Some kids are happy with themselves as a person — other kids are often not happy with themselves'). The internal consistency of this 6-item scale was acceptable (alpha = .77). A *t*-test did not show a significant sex difference in general self-worth.

Results

Children's network members were classified into eight categories: mother, father, grandparent, other adult, sibling, classmate, nonschool peer, young child. Nonschool peers were distinguished by age (7–17 years) from young children (below 7) and other adults (above 17). The frequencies and ages for the network members are reported in Table 1. Minima and maxima are reported instead of SDs because the former appear to be more informative in this case.

TABLE 1
Frequency, age, and extreme groups for categories of network members (N = 139)

	Frequency			Age (years)			Extreme groups[a]	
Network member	**Mean**	**Min.**	**Max.**	**Mean**	**Min.**	**Max.**	**With**	**Without**
Mother	1.00	1	1	40.5	30	52	103	36
Father	0.96	0	1	43.6	31	60	79	60
Classmate	3.86	0	9	11.5	11	14	101	38
Nonschool peer	3.07	0	9	11.8	7	17	90	49
Sibling	1.05	0	4	12.0	1	32	54	85[b]
Grandparent	1.14	0	5	68.2	50	93	51	88[c]
Other adult	3.30	0	9	37.5	18	80	81	58
Young child	0.17	0	3	3.6	1	6	—	—
Total network	14.55	8	22	26.0	1	93	136	3

[a] Number of children *with* at least one high supportive member vs *without* any high supportive member for each member type.
[b] Including 37 children who reported no sibling.
[c] Including 61 children who reported no grandparent.

Only one child was not living with the mother, and 20 children (14.4%) were not living with the father in the same household. Only 5.0 percent of the grandparents were household members; 2.9 percent of the siblings were not living in the child's household. This pattern strongly corresponded to a nuclear, two-parent family pattern. Because of the small number of young children in the networks, the following analyses were restricted to the other seven categories of network members.

Sex differences were analyzed by sex × network member MANOVAs for the frequencies and ages. The sex main effects and the sex × network member interactions were not significant. The frequencies of network members in the five categories for which children could nominate more than one member were

intercorrelated. Of the 10 correlations, one was significant but low: the number of nonschool peers in the network correlated ($r = -.22$) with the number of classmates in the network.

To explore social support, the factorial structure of the 15 support items was analyzed at the level of relationships, treating different network members of the same type and the same subject as different cases. Principal component analyses with subsequent varimax rotation for each category of network member indicated that there was no consistent factorial structure across different types of network members (Van Aken, 1995). Both Cauce et al. (1990) and Wolchik et al. (1989), applying confirmatory factor analyses of social support scales in children, have found that support effects are more differentiable by provider than by function. Therefore, we decided to aggregate our support items into one support scale. However, the subscale 'Companionship' was dropped from this aggregate, since it showed the lowest intercorrelations with the other subscales and also because it was related to interaction frequency (Van Aken, 1995) which is a questionable measure of social support because sometimes people are forced to spend much time with unsupportive interaction partners, as may be the case with classmates. Thus, we assessed social support by four scales that measured reliable alliance, enhancement of self-worth, intimacy and instrumental help. Internal consistencies for this support score for each category of network members ranged from .84 for 'other adults' to .92 for 'classmates'.

In a next step, we dichotomized the support scores, using the overall median for support (3.40 for all 1999 network members) as a cut-off point for low support. This score was close to the mean for support from all network members (ranging from 3.25 to 3.51), except for the parents ($M_{\text{mother}} = 4.19$, $M_{\text{father}} = 4.05$). To avoid too small low-support groups in these cases, we strengthened the criterion for parental support: parents were considered as supportive if they received a support score of at least 4.

The distribution of high and low supportive network members per member category is also described in Table 1. Three children did not mention above-average support from any network member at all. Because the choice of the cut-off point for support is relatively arbitrary, we ran the following analyses also for other cut-off points. The results were similar although our preferred choice of cut-off points appeared to be optimal with regard to the group sizes for the statistical analyses. Sex differences in the number of supportive network members were explored by a sex × network member mixed MANOVA. The sex main effect and the sex × network member interaction (Greenhouse–Geisser adjusted) were not significant.

Table 2 shows the correlations among the maximum support scores across network members (i.e. for the most supportive member in each category). The correlational pattern in Table 2 seems to suggest a distinction between support from agemates (either within or outside school, but not siblings), and parental support. Support from other network members was moderately related to both.

These correlational type of analyses, however, do not permit the analyses of a threshold effect of having at least one supportive member for a relationship category, nor do they permit the analyses of asymmetrical patterns of dependency. Therefore, we analyzed the categorical difference between having none vs at least one supportive member for a relationship category. We explored the interdependence of low support by a series of χ^2 tests that contrasted the number of children with/without a high supportive member for each pair of categories.

TABLE 2
Correlations among the maximum support scores across network members

Network member	Mother	Father	Classmate	Nonschool peer	Sibling	Grandparent
Mother	—					
Father	.70***	—				
Classmate	.08	.09	—			
Nonschool peer	.09	.11	.29***	—		
Sibling	.37***	.27**	.31**	.23*	—	
Grandparent	.31**	.32**	.42***	.39***	.41**	—
Other adult	.26**	.34***	.28**	.29**	.32**	.52***

* $p < .05$; ** $p < .01$; *** $p < .001$.
$56 < N < 139$.

TABLE 3
Significant interdependencies among low support by different types of network members

		Support by					
		Mother		Sibling		Classmates	
Member	Support	Low	High	Low	High	Low	High
Mother	Low			19	8		
	High			29	46		
Father	Low	35	25	27	18		
	High	1	78	21	36		
Grandparent	Low					13	14
	High					7	44

Note: Reported are frequencies of subjects for those cross-classifications of support that showed significant interdependencies.

This procedure of testing for a threshold effect could lead to biased results in the analysis of support from grandparents or siblings if we had not taken into account that some children simply do not have any grandparents or siblings. Our support measure must distinguish between nonexisting relationships and low support from existing relationships. Therefore, in this part of the analysis, we treated children's support scores for grandparents or siblings as missing values if they did not have any (supportive or unsupportive) grandparents or siblings. For the children who actually mentioned grandparents or siblings in their social network, we compared the effects of having at least one supportive grandparent or sibling with having only low-supportive grandparents or siblings.

Of these 21 tests, four were significant (continuity-adjusted χ^2): mother–father, $\chi^2_{(1)} = 54.93$, $p < .001$; mother–sibling, $\chi^2_{(1)} = 6.79$, $p < .01$; father–sibling, $\chi^2_{(1)} = 4.52$, $p < .04$; classmate–grandparent, $\chi^2_{(1)} = 9.24$, $p < .01$). Thus, there were interdependencies among all members of the nuclear family, and in addition between grandparents and classmates. Table 3 shows the cross-classification of support for these four cases.

Concerning support by mother and father, Table 3 suggests that low support

by the mother was accompanied by low support by the father in nearly all cases whereas the reverse was not true: low support by the father was compatible with high support by the mother in many cases. Such asymmetric patterns of dependency between two categorical variables can be expressed by Goodman & Kruskal's (1979) asymmetric lambda. This coefficient of predictive association measures the change in certainty in a variable Y, given knowledge about an associated variable X. If knowledge of X does not increase certainty in Y, *lambda* = 0; if knowledge of X leads to complete certainty in Y, *lambda* = 1.

Knowledge of the variable 'support by the mother' strongly increased the certainty in the variable 'support by the father' (*lambda* = .57) whereas knowledge of the variable 'support by the father' did not increase the certainty in the variable 'support by the mother' that much (*lambda* = .28). Stated differently, low support by one parent increased the risk of low support from the other parent, and this increase in risk was more pronounced when low support by the father was predicted from low support by the mother, than vice versa.

Similarly, low support by the mother increased the risk of low support from the siblings (*lambda* = .23) but not vice versa (*lambda* = .00), and low support by the father increased the risk of low support from the siblings slightly more (*lambda* = .19) than vice versa (*lambda* = .13). Finally, low support by classmates increased the risk of low support from the grandparents (*lambda* = .22) but not vice versa (*lambda* = .00).

The correlations between perceived support from various categories of network members and general self-worth were significant for support from mother ($r = .32$, $p < .001$), father ($r = .38$, $p < .001$), and for perceived support from the classmate with the highest score ($r = .23$, $p < .05$). These correlations were not significant for nonschool peers ($r = .03$), siblings ($r = .12$), grandparents ($r = .15$), and other adults ($r = .09$) — again each time computed for the network category member with the highest support score.

To test for a threshold effect for support (i.e. whether high self-esteem is related to the presence of at least one supportive member in a given network category), for each category of network members, we used *t*-tests to compare the general self-worth of children without any supportive member in a particular category with the general self-worth of children who had at least one such supportive member. Three significant effects were found (effect sizes for the group differences in terms of the pooled SD, $d = 2t/\sqrt{\text{d.f.}}$ are also reported). A lower general self-worth was found for children with a low-supportive mother ($t(137) = 4.52$, $p < .001$, $d = 0.78$) and with a low-supportive father ($t(137) = 4.03$, $p < .001$, $d = 0.69$), reflecting the positive correlations found for both. A lower general self-worth was also found for children with only low supportive classmates ($t(137) = 2.04$, $p < .05$, $d = 0.35$). The effect sizes for low support by mother or father were large; for support by classmates, the effect size was only half as large. Again, as in the correlational analysis, support by grandparents, other adults, siblings, and nonschool peers was not even marginally related to children's self-esteem (in each case, $t < 1.1$; children who had no grandparents or siblings were excluded from the analyses for grandparent or sibling support). Sex × support ANOVAs did not show significant sex × support interactions.

To study compensatory effects, support by mother, father and classmates was cross-classified by high vs low support by the six other types of network members, and children's self-worth scores were compared across these groups (see Table 4).

Possible compensatory effects were studied by two series of orthogonal, a

TABLE 4
Compensatory effects of support on self-worth

Member	Support	Support by Mother: Low	Support by Mother: High	Support by Father: Low	Support by Father: High	Classmates: Low	Classmates: High
Mother	Low	—	—	−0.67 (35)	1.51 (1)	−0.50 (12)	−0.66 (24)
				*			
	High	—	—	0.04 (25)	0.27 (78)	−0.18 (26) *	0.34 (77)
Father	Low	−0.67 (35)	0.04 (25)	—	—	−0.53 (15)	−0.32 (45)
		*					
	High	1.51 (1)	0.27 (78)	—	—	−0.11 (23) *	0.45 (56)
Classmate	Low	−0.50 (12)	−0.18 (26)	−0.53 (15)	−0.11 (23)	—	—
	High	−0.66 (24) *	0.34 (77)	−0.32 (45) *	0.45 (56)	—	—
Nonschool peer	Low	−0.46 (17)	0.32 (32)	−0.31 (25)	0.42 (24)	−0.10 (18)	0.14 (31)
	High	−0.74 (19) *	0.16 (71)	−0.42 (35) *	0.22 (55)	−0.44 (20) *	0.09 (70)
Sibling	Low	−0.46 (28)	0.28 (57)	−0.27 (42)	0.39 (43)	−0.18 (25)	0.12 (60)
	High	−1.11 (8) *	0.13 (46)	−0.60 (18) *	0.22 (36)	−0.47 (13) *	0.08 (41)
Grandparent	Low	−0.55 (27)	0.17 (61)	−0.37 (41)	0.22 (47)	−0.31 (31)	0.09 (57)
	High	−0.77 (9) *	0.28 (42)	−0.38 (19) *	0.37 (32)	−0.15 (7)	0.13 (44)
Other adult	Low	−0.58 (20)	0.23 (38)	−0.34 (31)	0.28 (27)	−0.27 (19)	0.06 (39)
	High	−0.64 (16) *	0.20 (65)	−0.41 (29) *	0.28 (52)	−0.29 (19) (*)	0.13 (62)

Note: Reported are group means for *z*-transformed self-worth scores (group sizes in parentheses). Significant differences between groups in the first column or the second row of each 2 × 2 subtable are indicated by * ($p < .05$) or (*) ($p < .10$).

priori contrasts within the resulting 18 2 × 2 ANOVAs (note that neither the main effects nor the interaction in these ANOVAs test compensatory effects directly). First, the two groups in the first column of each 2 × 2 subtable in Table 4 were contrasted with one another. A significant compensatory effect was indicated by a significantly higher self-worth score for the lower left group in the 2 × 2 subtable as compared the upper left group. For example, a

compensatory effect of the father's support on low support by the mother was indicated by higher self-worth scores in the father-*high*/mother-low group than in the father-*low*/mother-low group.

Second, we tested whether compensation was complete, i.e. whether the negative effect of low mother, father, or peer support on self-worth was fully compensated by high support from another type of network member. Completeness of compensation was tested by comparing the two groups in the second row of each 2 × 2 subtable with one another; significantly lower self-worth scores in the lower left group than in the lower right group indicated that the compensation was incomplete. For example, complete compensation of father's support on low support by the mother was indicated by *no* difference in self-worth scores between the father-high/mother-*low* group and the father-high/mother-*high* group.

Because this analysis focuses on the effect of high support rather than low support, children who had no siblings or grandparents were *not* excluded from analysis. Lack of compensation can in these cases therefore be caused by either low supportive or totally lacking siblings or grandparents. Table 4 indicates 16 significant differences in 36 tests; thus, these differences cannot be explained by chance alone despite the many tests. Table 4 shows that low support by the mother was significantly compensated for only by a supporting father (there was only one such child, however); compensation was complete in this case. Similarly, low support by the father was compensated for only by a supporting mother (and completely so). Low support by a classmate was not compensated for by a supportive mother or father, nor by support from any other member of the network, including siblings or nonschool peers.

The inability of nonschool peers and siblings to compensate for low support from classmates would be more understandable if it could be demonstrated that classmates provide types of support that are not provided by nonschool peers or siblings. Therefore we explored possible interactions between the three kinds of children (siblings, classmates, and nonschool peers) and the four support functions (instrumental help, intimacy, enhancement of self-worth, and reliability of relationship), averaged over all members of a relationship category, by a 3 × 4 × 2 mixed ANOVA, including sex as a between-subject factor. Because children without siblings, classmates, or nonschool peers had to be excluded from this analysis, it was based on only 93 subjects. The scales factor did not interact significantly with the children factor ($F(6,546) = 1.75, p = .14$; Greenhouse–Geisser adjusted). Thus, there was no evidence for a relationship specificity of the four support scales, suggesting that classmates, nonschool peers, and siblings provided a similar level of support in the four domains of support that were investigated in this study.

Discussion

We used a network perspective to study the covariation of 12-year-olds' social support across all major kinds of relationships, and the association between support from specific kinds of relationships and self-worth. In addition, we investigated whether low support from one kind of relationship can be compensated for by support from other relationships. The results showed that (a) level of social support was fairly specific to particular types

of network members, and low support within the nuclear family was fairly independent of low support from other relationships; (b) support was strongly associated with low self-worth for the relationships with the mother and the father, and significantly associated, but less strongly, for the relationships with classmates; (c) low support from one parent could be compensated for only by support from the other parent; and (d) low support by classmates was not compensated by support from other children.

Low support by the mother was a strong risk factor for low support by the father, and, less strongly, for low support by siblings; low support by the father evidenced a similar, though somewhat weaker tendency to generalize within the nuclear family; low support by siblings showed only a marginal tendency to generalize to the father. The asymmetry between the two parents becomes most obvious in the finding that only one of 139 children perceived the father but not the mother as supportive whereas 25 children shared the opposite view. These results attest to the central role of the parents, particularly the mother, in providing support: if support from the mother was low, children had little chance to receive high support from other family members. Low support from members of the nuclear family did not generalize beyond the frontiers of the family. This family specificity could be due to a common genetic factor, to the generalization of a family member's negative attitude to a child through within-family communication, or to particular personality traits of a child that evoke self-relevant reactions particularly in family members.

It is important to distinguish the conditional probability of receiving support from a network member Y, given low support from another member X, from the possibility of compensation by Y if X provides low and Y provides high support. This becomes most obvious when the effects of support on children's self-worth are compared between mother and father. It was extremely unlikely that children received high support from the father when they reported low support from the mother, but in the one case where this happened, the father apparently could compensate for the mother: the child had an extremely high self-worth. Also, the mothers often and successfully compensated for a low-supportive father; the average self-worth score of the 25 children in this category equalled the sample mean. One interpretation of this pattern is that parents are functionally equivalent with regard to their children's self-worth: one parent can replace the other parent's esteem-enhancing or esteem-buffering role.

Alternatively, low general self-esteem might predispose children to a negatively biased view of parental support. This alternative interpretation seems less likely, though, because low self-worth was not associated with perceptions of low support from grandparents, siblings, and nonschool friends. It is not clear why low self-esteem children should underestimate support from parents but not from many other kinds of network members.

The use of both a correlational and a threshold approach for testing the relations between support and self-esteem was only partly successful. For mother and father, the threshold effects are of course equivalents of the correlations between support and self-esteem. The analyses of support

from classmates, however, showed a threshold effect of support from classmates: for high self-esteem it is critical to perceive at least one classmate as supportive. Support from classmates is different from support from nonschool peers. This is suggested by the findings that low support from classmates was statistically independent from low support from nonschool peers or siblings: this result underscores the relationship-specificity of social support even for within-children comparisons. The different role of classmates and nonschool peers becomes most obvious by the finding that low support from classmates but not from nonschool peers was related to low self-worth, and that support from nonschool peers could not compensate for a low support from classmates. That classmates appeared to be more important for children's self-worth than nonschool peers can be regarded a justification for the widespread tendency of researchers to study peer relationships in the classroom rather than outside of it. A parallel to East & Rook's (1992) study is the result that sibling support did not compensate for low classmate support.

That supportive nonschool peers could not compensate low support from classmates suggests that nonschool peers fail to provide particular supportive functions of classmates. However, an analysis of the four support functions (instrumental help, intimacy, esteem enhancement and reliability of relationship) did not reveal differences between classmates and nonschool peers. Another possibility is that differences are not present in the kind of support, but in the domain where support is needed. Support from classmates in coping with school-based problems may be more important for self-esteem than support from nonschool peers in coping with problems outside of school. Further studies are needed to determine classmates' critical support functions for children's self-worth.

Unexpectedly, low support from classmates tended to generalize to grandparents but not vice versa. Although we are not aware of any theory that could explain this link directly, the social convoy model (Kahn & Antonucci, 1980) might give a direction here. In this model, the social network is represented as a series of concentric circles, with close family members in the inner circle, and friends, extended family (such as grandparents), and others in more peripheral circles. We could speculate that covariation of support is tied to these circles, i.e. low support might generalize to persons within the same circle (e.g. within the nuclear family, or within more peripheral circles), but not across circle boundaries. However, because the effect size of the link was not large, replication of the finding is needed before speculating post hoc about this result.

It should be noted that we studied a non-clinical sample, and that we analyzed differences between above- and below-average support. Further studies on clinical samples or extreme groups of children who report very low support for particular categories of network members could try to replicate the present findings. Furthermore, Levitt et al.'s (1993) finding that close family members' support is more strongly related to self-esteem in Anglo/European-American than in African-American children points to another limitation of the present study: its results may be

generalizable to central-European and European-American families, but not beyond.

All in all, our findings demonstrate a high degree of relationship specificity. This relationship specificity suggests that the results of the present study are not seriously affected by the fact that the same children judged both their support and their self-worth (monomethod bias). Had the results been due mainly to biased judgements on the part of the children to perceive everything in the world as more positive or negative, the association between support and self-worth would have been more consistent across relationships. Further, the strong relationship specificity of the results is a strong argument for studying, at least in preadolescence, relationships from a network perspective rather than relying on global measures of social support, or selecting one kind of relationship as being representative for all.

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